Transportation Concept Report

State Route 166
District 06
May 2016

Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this Transportation Concept Report (TCR) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, the District 6 System Planning Division makes every effort to ensure the accuracy and timeliness of the information contained in the TCR. The information in the TCR does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.

California Department of Transportation

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

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Front Cover: State Route 166 heading west into Maricopa

TABLE OF CONTENTS

About the Transportation Concept Report 1

Stakeholder Participation 1

Planning Context 2

EXECUTIVE SUMMARY 3

- Concept Summary 3
- Concept Rationale 3
- Proposed Projects and Strategies 4

CORRIDOR OVERVIEW 5

- Route Segmentation 5
- Route Description 5
- Community Characteristics 10
- Land Use 11
- System Characteristics 12
- Complete Streets 13
- Transit Facility 18
- Freight 18
- Environmental Considerations 20
- Native American Considerations 22

CORRIDOR PERFORMANCE 24

KEY CORRIDOR ISSUES 24

CORRIDOR CONCEPT 24

- Concept Rationale 24
- Planned and Programmed Projects and Strategies 25
- Projects and Strategies to Achieve Concept 25

APPENDICES 27

- Appendix A: Acronyms And Glossary of Terms 27
- Appendix B: Summary Charts 34
- Appendix C: Bicycle Information 37
- Appendix D: Transit Map 38
- Appendix E: References 40

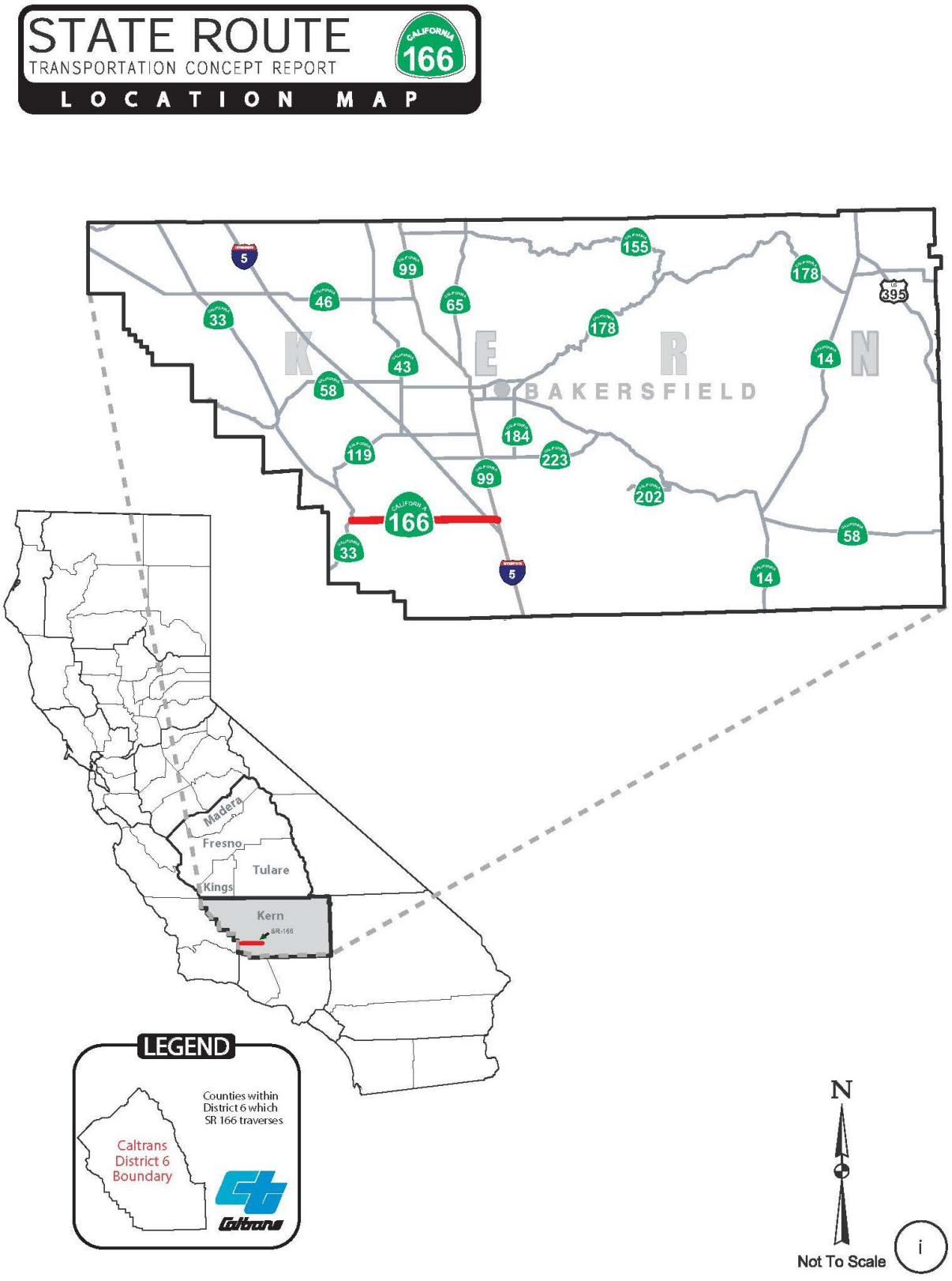
MAPS

Map 1: Location Map i
Map 2: Segment Map 7
Map 3: Maricopa Insert 9
Map 4: Freight Map 19
Map 5: Map of Ethnographic Territories in Eight County Study Area 24

TABLES

Table 1: Concept Summary 3
Table 2: Route Segmentation 5
Table 3: Route Designations and Characteristics 10
Table 4: Land Use 12
Table 5: System Characteristics 13
Table 6: Bicycle Facility 16
Table 7: Pedestrian Facility 17
Table 8: Transit Facility 18
Table 9: Freight Facilities 18
Table 10: Environmental Critical Species and Habitat 21
Table 11: Possible Contamination Sites 22
Table 12: Corridor Performance 24
Table 13: Planned and Programmed Projects 25
Table 14: Projects and Strategies to Achieve Concept 25

MAP 1: LOCATION MAP



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ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. The district-wide **DSMP** is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TCR** is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The **CSMP** is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, the public, and our partners - regional and local agencies.

TCR Purpose

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

Stakeholders were consulted during the research phase of this TCR for their input and the accuracy of the data. Contact was done mainly via e-mail or telephone. Once a draft was completed, it was circulated for comments with internal stakeholders. These stakeholders include: the divisions of Planning, Traffic, Maintenance, Environmental, Design, Right of Way, and the Native American Liaison. As comments were collected, the TCR was further edited and revised. As the TCR became more finely tuned, it was then sent out via e-mail or regular mail for input from external stakeholders. These stakeholders include, within the corridor: Metropolitan Planning Organizations (MPOs), Regional Transportation Planning Agencies (RTPAs), city and county planning and public works agencies, transit agencies, Sierra Club Chapters, California Trucking Association, Air Pollution Control Districts, Chambers of Commerce, Native American Tribes, Farm Bureaus, and other transportation agencies. Upon signature of both the District 6 Planning Deputy Director and the District 6 Director, thus making the document official and final, copies were e-mailed, sent by regular mail, and posted to the District 6 Intranet site at: http://www.dot.ca.gov/dist6/planning/tcrs/.

PLANNING CONTEXT

This section of the TCR introduces select State planning documents and outlines the principles of the Smart Mobility Framework (SMF) used throughout the TCR.

STATE PLANNING

The California Transportation Plan (CTP) provides a long-range policy framework to meet California's future mobility needs and reduce greenhouse gas emissions. The CTP defines goals, performance-based policies, and strategies to achieve the collective vision for an integrated multimodal transportation system. The plan envisions a sustainable system that improves mobility and enhances quality of life. Key to this vision is considering "the 3 E's of Sustainability": a prosperous economy, quality environment and social equity in all transportation decisions. The CTP works to both support and guide regional transportation planning efforts to meet AB 32 and SB 375.

The California Interregional Blueprint (CIB) is a State-level document that articulates the State's vision for an integrated multimodal transportation system which complements regional transportation and land use plans. It links statewide transportation goals with regional transportation and land use goals to produce a unified transportation strategy. It supports the development of Sustainable Communities Strategies at the regional level, and has been incorporated into the CTP.

CALTRANS SMART MOBILITY FRAMEWORK

Caltrans 2020 *Smart Mobility: A Call to Action for the New Decade* presents a new approach to the integration of transportation and land use. The Smart Mobility Framework (SMF), seeks to develop multi-modal and sustainable transportation strategies for California. SMF was prepared in partnership with the US Environmental Protection Agency, the Governor's Office of Planning and Research, and the California Department of Housing and Community Development. Caltrans develops SMF concepts in partnership with MPOs, counties, cities and local stakeholders.

SMF aims to address:

- The State's mandate to reduce greenhouse gas (GHG) emissions and find solutions to climate change.
- The need to reduce per capita vehicle miles traveled. Reduced per capita auto use will lower emissions of GHG and conventional pollutants, reduce petroleum consumption and associated household transportation costs, and minimize negative impacts on air quality, water quality, and noise environments.
- The demand for a reliable and safe transportation system that gets people and goods to their destinations. SMF endorses the application of strategies that result in a shift away from higher-polluting modes to the use of transit, carpooling, walking, and biking to meet travel needs.
- The commitment to create a transportation system that advances social equity and environmental justice. SMF integrates social equity concerns into transportation decisions and investments. SMF recognizes that transportation planning extends beyond the transportation system and sees land use as an important determinant in developing transportation solutions. The principles of SMF look to a multi-modal vision actively deemphasizing the use of vehicle-only Level of Service for transportation decision-making.

Possible alternatives to implement the SMF on this State highway include:

- Multi-agency corridor management team responsible for corridor system oversight.
- Comprehensive multi-modal traffic monitoring and detection, traffic operations, and travel information.

- Addition of HOV lanes along portions of the freeway where bottle-necks exist and along a regional bus/carpool lane network, including direct freeway-to-freeway connections.
- Expanded transit options.
- Closure of gaps on key bicycle routes and improved freeway ramp intersections on bike routes.
- New infill interchange.

EXECUTIVE SUMMARY

In District 6, State Route (SR) 166 exists solely in Kern County (please see Map #1, Location Map). The route serves recreational and agricultural uses. Currently, it has a level of service (LOS) "B".

The base year (BY) is 2014, and the horizon year (HY) is 2040, unless otherwise noted.

Concept Summary

Table 1: Concept Summary

Segment *	Segment Description	Existing Facility	20-25 Year Capital Facility Concept	20-25 Year System Operations and Management Concept	20-25 Year Facility Concept	Post-25 Year Concept
1	SR 33 North to Pentland Rd	2C**	2C with improvements	AC overlay, closed circuit television, highway advisory radio, changeable message sign	2C with improvements, AC overlay, closed circuit television, highway advisory radio, changeable message sign	4C
2	Pentland Rd to Old River Rd	2C	2C with improvements	AC overlay, reconstruct intersection grade at Basic School Rd	2C with improvements, AC overlay, and reconstruct intersection grade at Basic School Road	4C
3	Old River Rd to I-5	2C	2C with improvements	Changeable message sign	2C with improvements and changeable message sign	4C
4	I-5 to SR 99	2C/4C	2C/4C with improvements	None	2C/4C with improvements	4C

* Please see Segment Map on page 7.

** For definitions of facility type, please see Appendix A, Acronyms and Glossary of Terms, page 28.

Concept Rationale

Considering reasonable financial and physical constraints, this TCR defines the appropriate route concept level of service (LOS) and facility type(s) for SR 166. Level of service is a qualitative measure used to describe the operational conditions in a stream of traffic and the perception of conditions by users. It is a measure of factors such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations from "A" to "F", with LOS "A" representing the best operating conditions and LOS "F" representing the worst. Each LOS represents a range of operating conditions.

The route currently operates at an acceptable LOS of "B". The LOS is not expected to fall to an LOS of "C" until after the year 2040. Beyond the year 2040, improvements may be needed and perhaps widening to four lanes will be needed.

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, or whichever LOS is feasible to attain. The concept LOS is a target LOS determined by the importance of the route and environmental factors. A deficiency or a need for improvement is triggered when the actual LOS falls below the concept LOS.

Proposed Projects and Strategies

This route includes a number of at-grade intersections. The type of traffic control at intersections on the SHS is determined through a process called Intersection Control Evaluation, which requires that all viable alternatives be considered. In general, Caltrans has a preference for roundabouts over signalized intersections where viable because roundabouts often have superior performance with regards to safety and operations for drivers, pedestrians, and cyclists. They may also require less maintenance than traffic signals and have fewer environmental impacts. While right-of-way requirements may be greater at an intersection for a roundabout than a traffic signal, less right-of-way is often needed between intersections due to reduced storage requirements or a reduced number of through lanes.

There is an unconstrained project listed in the Kern Council of Governments' (Kern COG) 2014 Regional Transportation Plan (RTP), to reconstruct an at-grade intersection at Basic School Road.

The Highway Design Manual (HDM) provides design guidance and should be utilized when planning and developing roundabouts on the SHS.

Lush looking vineyards on the south side of SR 166

CORRIDOR OVERVIEW

ROUTE SEGMENTATION

Table 2: Route Segmentation			
Segment	**Location Description**	**County_Route_ Beg. PM**	**County_Route_ End PM**
1	SR 33 North to Pentland Rd	KER_166_0.010	KER_166_2.960
2	Pentland Rd to Old River Rd	KER_166_2.960	KER_166_14.860
3	Old River Rd to I-5	KER_166_14.860	KER_166_22.797
4	I-5 to SR 99	KER_166_22.797	KER_166_24.620

ROUTE DESCRIPTION

Route Location: State Route 166 begins in Santa Barbara County at SR 1, near the community of Guadalupe. It traverses 96 miles through the counties of Santa Barbara, San Luis Obispo, and into Kern. In District 6, it exists solely in Kern County from the north junction of SR 33 to SR 99. The route covers over 24 miles in District 6 and serves the City of Maricopa.

Route Purpose: The route provides an east-west corridor between SR 33 and SR 99. It is used as a recreational route to the coastal cities of Santa Maria and Pismo. When the I-5 Grapevine is closed and when SR 58 East is closed due to inclement weather it serves as an alternate route. State Route 166 also provides transport for equipment and fuel between the U.S. Air Force bases, Edwards in eastern Kern County and Vandenberg in Santa Barbara County.

Major Route Features: The route is known as the Maricopa Highway.

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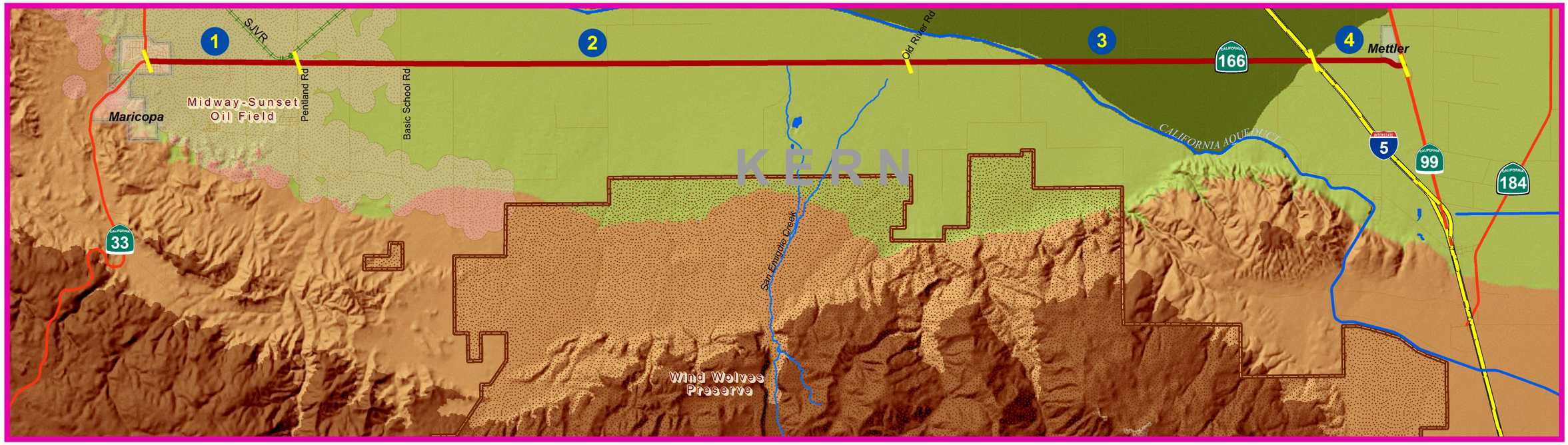
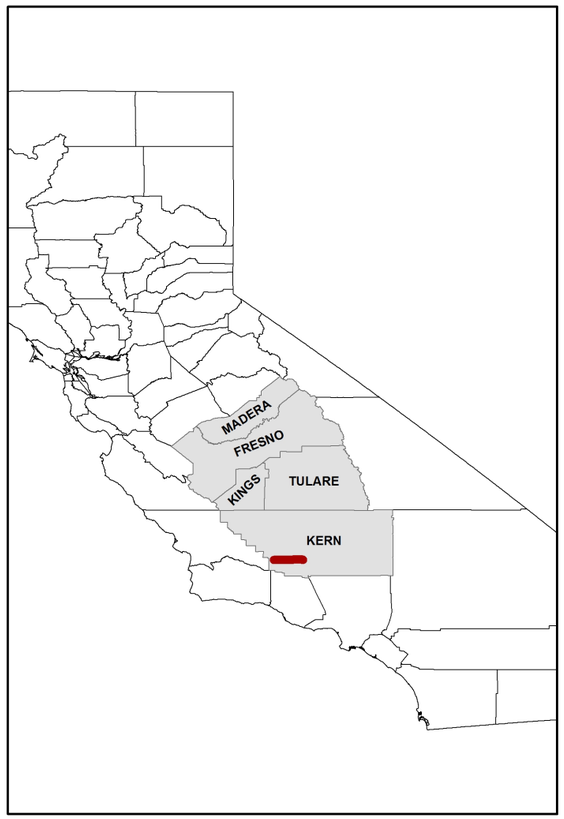


2.5 1.25 0 2.5 Miles



STATE ROUTE
TRANSPORTATION CONCEPT REPORT
SEGMENT MAP

CALIFORNIA 166

03/28/15 California Dept of Transportation

Kern County

Segment 1: **SR 166 PM 0.01/2.96**
SR 33 North to Pentland Rd

Segment 2: **SR 166 PM 2.96/14.86**
Pentland Rd to Old River Rd

Segment 3: **SR 166 PM 14.86/22.797**
Old River Rd to I-5

Segment 4: **SR 166 PM 22.797/24.62**
I-5 to SR 99

Source: ESRI, California Department of Conservation-Oil Gas & Geothermal, The Wildlands Conservancy Inc-Wind Wolves Preserve

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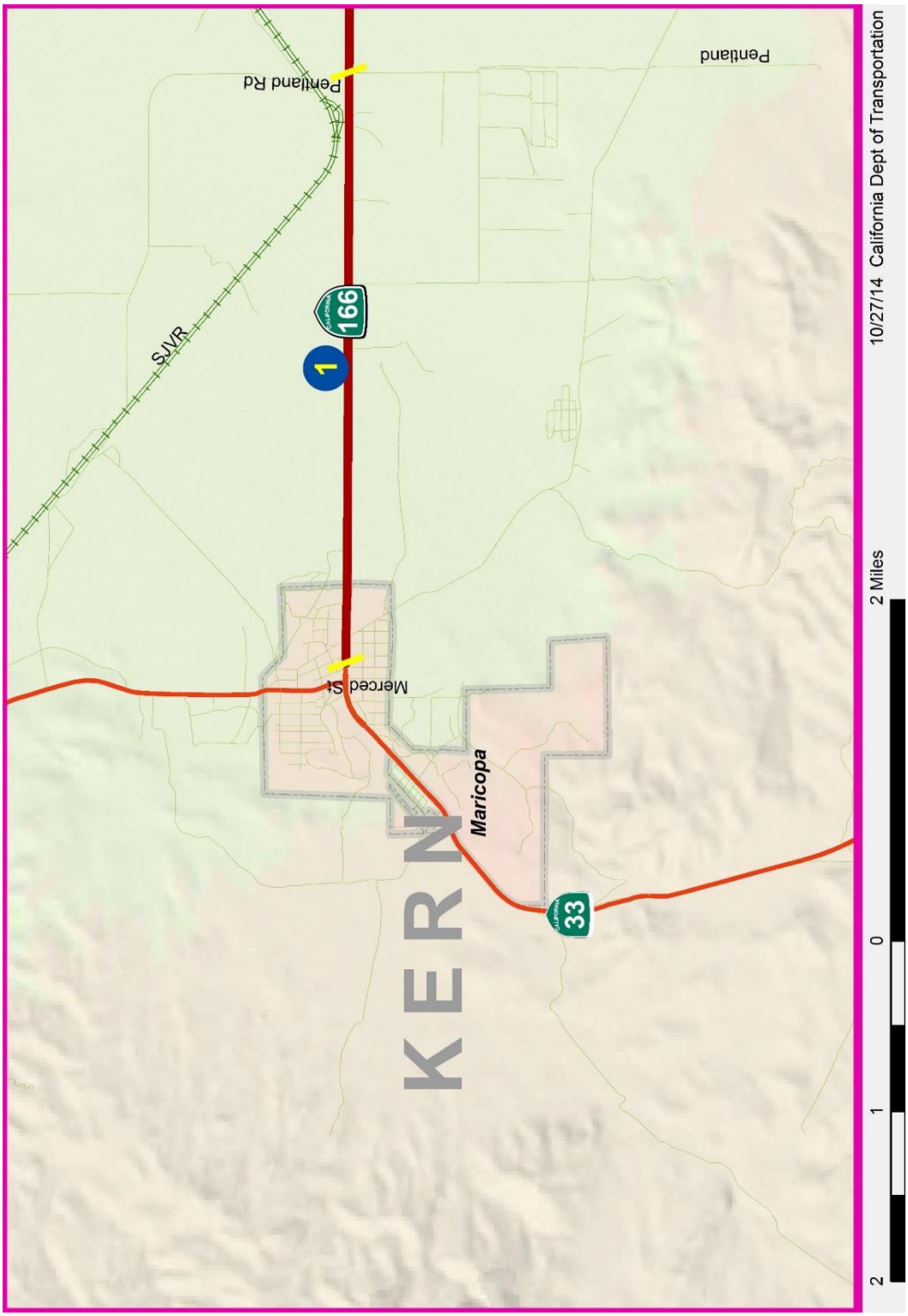
Map 3: Maricopa Insert

CITY OF MARICOPA



Route Designations and Characteristics:

Table 3: Route Designations and Characteristics					
Segment		**1**	**2**	**3**	**4**
Freeway & Expressway		Yes	Yes	Yes	No
National Highway System		No	No	No	No
Strategic Highway Network		No	No	No	No
Scenic Highway		No	No	No	No
Interregional Road System		No	No	No	No
High Emphasis		No	No	No	No
Focus Route		No	No	No	No
Federal Functional Classification		Minor Arterial	Minor Arterial	Minor Arterial	Minor Arterial
Goods Movement Route		Yes	Yes	Yes	Yes
Truck Designation		Terminal Access (STAA)/Extralegal Load Network (ELLN)	Terminal Access (STAA)/Extralegal Load Network (ELLN) to Basic School Rd	Terminal Access (STAA)	Terminal Access (STAA)
Rural/Urban/Urbanized		Urban/Rural	Rural	Rural	Rural
Metropolitan Planning Organization		Kern COG	Kern COG	Kern COG	Kern COG
Regional Transportation Planning Agency		Kern COG	Kern COG	Kern COG	Kern COG
Congestion Management Agency		Kern COG	Kern COG	Kern COG	Kern COG
County Transportation Commission		NA	NA	NA	NA
Local Agency		City of Maricopa/County of Kern	County of Kern	County of Kern	County of Kern
Tribes		*	*	*	*
Air District		SJVAPCD	SJVAPCD	SJVAPCD	SJVAPCD
Terrain		Flat	Flat	Flat	Flat

* Santa Rosa Tachi Yokuts Tribe, Santa Ynez Band of Chumash Indians, Tejon Indian Tribe, Tule River Indian Tribe

COMMUNITY CHARACTERISTICS

Maricopa is the only city along the route (please see Map #3: Maricopa Insert). According to the 2010 U.S. Census, Maricopa's population was 1,154 with 20% being of Hispanic descent. The city is just a few miles south of Taft, which is up the highway on SR 33. Maricopa's first post office opened in 1901 and the city was incorporated in 1911. The City of Maricopa is called the "Gateway to the Sea," as SR 166 is the highway to Santa Maria and the Pismo areas. Maricopa is located in an oil rich area, the Midway-Sunset Oil Field, on the eastern side of the Temblor Mountains. The Midway-Sunset Field is the third largest oil field in the nation, and the largest in the state, covering over 30 square miles. It was discovered in 1894 and a large oil gusher was discovered in 1909. This gusher has been the longest lasting and most productive oil gusher in the United States. The oil field continues to bring high yields of crude oil.

At the end of the route, and just north on SR 99, is the census designated place (CDP) of Mettler. Mettler's population as of the 2010 U.S. Census was 136, with 80% being of Hispanic descent. Mettler was founded in the 1940s by the William H. Mettler family from South Dakota.

LAND USE

About three miles from the beginning of the route to the west, is the Nestle Purina Pet Care Facility. This facility is located in the hills and has a long climbing road to the plant. The plant produces cat litter from the clay from the surrounding area. The hills have been mined for clay for use in cat litter for decades.

At the beginning of SR 166, is the City of Maricopa. The land use is mixed, mainly residential, with some small commercial developments. On the city's east, oil wells dominate. The Midway-Sunset Oil Field is found stretching north to McKittrick and southeast past Maricopa. The oil fields in the area are operated by Chevron, Aera Energy, Occidental Petroleum and Plains, Breitburn Energy, Berry Petroleum, and numerous others.

Continuing east on the south side of SR 166, is the Wildlands Conservancy's Wind Wolves Preserve. It is a private reserve covering over 96,000 acres. Just to the east of the preserve is the San Emigdio Mine, operated by Vulcan Materials Company. The mine currently is 802 acres, but is in the process to expand to over 4,000 acres. The company mines aggregate, sand and gravel.

The remainder of the route is agricultural in use. The Halo Company Mandarins are grown in this area. Also, other crops are raised including kiwis, pistachios, clementines, and others. The California Aqueduct crosses the route at post mile 17.449. At the I-5/SR 166 Interchange, there is a fueling station and convenience store. The route continues on to the SR 99/SR 166 Interchange with some highway commercial land use north of the interchange.

SR 166 in Maricopa

Table 4: Land Use	
Segment	**Place Type**
1	Rural town
2	Rural settlements and Agricultural lands
3	Rural settlements and Agricultural lands
4	Rural settlements and Agricultural lands

Carrots growing along SR 166

SYSTEM CHARACTERISTICS

State Route 166 is a two-lane rural highway with a few traffic census stations along the route. It has no truck climbing, passing, or auxiliary lanes. The route currently does not warrant any capacity improvements.

Note: Table below contains only the applicable and required data for a TCR, if it does not have PeMS detection, based on the Caltrans, HQ TCR guidelines 2012.

Table 5: System Characteristics					
Segment		**1**	**2**	**3**	**4**
Existing Facility					
Facility Type		C	C	C	C
General Purpose Lanes		2	2	2	2/4
Lane Miles		5.7	23.8	15.874	3.646/7.292
Centerline Miles		2.85	11.9	7.937	1.823
Auxiliary Lanes		0	0	0	0
Passing Lanes		0	0	0	0
Truck Climbing Lanes		0	0	0	0
Concept Facility					
Facility Type		C	C	C	C
General Purpose Lanes		2	2	2	2/4
Lane Miles		5.7	23.8	15.874	3.646/7.292
Centerline Miles		2.85	11.9	7.937	1.823
Auxiliary Lanes		0	0	0	0
Passing Lanes		0	0	0	0
Truck Climbing Lanes		0	0	0	0

TMS Elements					
Segment		**1**	**2**	**3**	**4**
TMS Elements (BY)		Traffic census station	Traffic census station	Traffic census stations	Traffic census station
TMS Elements (HY)		Closed circuit television, highway advisory radio, changeable message sign	None	Changeable message sign	None

COMPLETE STREETS

A Complete Street is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Complete Street concepts apply to rural, suburban, and urban areas. Providing Complete Streets increases travel options which, in turn, reduce congestion, increase system efficiency, and enable environmentally sustainable alternatives to single driver automotive trips. *Smart Mobility Framework analysis allows for people to see what Complete Streets strategies might be most appropriate for the land use of an area.*

Implementing Complete Streets and other multi-modal concepts supports the California Complete Streets Act of 2008 (AB 1358), as well as the California Global Warming Solutions Act of 2006 (AB 32) and SB 375, which outline the State's goals of reducing greenhouse gas emissions. With AB 1358 and DD-64-R2, both Caltrans and local agencies are working to address common goals.

Through Deputy Directive 64-R2, Caltrans provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State Highway System (SHS). The Department views all transportation improvement projects (new and retrofit) as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

For more information on bicycles and complete streets, please see the webpage "District 6 Bicycle and Complete Streets Program" located at: http://www.dot.ca.gov/dist6/bicycle/.

For a copy of Deputy Directive 64-R2, please see:
http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/dd_64_r2.pdf.

Bicycle Facility

The route does not prohibit bicycles. (Please refer to Table 6: Bicycle Facility).

California's transportation system cannot meet the State's needs by just accommodating vehicle travel. As the transportation system expands, the regional agencies may consider a future bikeway system on this State highway that would convert it into a vital multi-modal corridor. Improved bicycle facilities along the state route would give residents another choice of transportation, reduce carbon dioxide emissions, and reduce congestion.

Many municipalities may already have a comprehensive bicycle network that – when mapped – appears to adequately cover a large area with multiple intersecting on-street bike lanes or sign-posted bike routes. However, if these facilities are inaccessible to cyclists seeking a low-stress experience then the network may not meet the needs of everyone. Municipalities may implement separated bike lanes as a way to provide a low-stress bicycle network. Such a network might be overlaid on and around – or even replace – an existing bicycle network. It pays particular attention to higher quality, lower-stress connections, even if this results in some backtracking or extra distance requirements for cyclists using the enhanced network. Separated bikeways, also known as cycle tracks,

are one of many bicycle facility types that can be used to create bicycle networks, which are interconnected bicycle transportation facilities that allow bicyclists to safely and conveniently get where they want to go. Well-planned and designed separated bikeways (Class IV) can complement or connect to other facilities such as on-street bike lanes (Class II) and shared use paths (Class I). Separated bikeways can appeal to a broad range of people and in doing so contribute to increases in bicycling volumes and rates. In many American cities, transit-dependent populations often face long commutes that are exacerbated by limited access to private motorized transport and residences far from convenient public transport options. A low stress bicycle network gives transportation options to these communities. Implementing a street conversion by adding a separated bikeway, along with other Complete Streets elements like landscaped pedestrian refuge islands, enhanced transit stops, and others can help to ensure that transportation projects are well received. Furthermore, adding a separated bikeway design to a more wide-ranging Complete Streets retrofit may often represent only a marginal increase in overall investment on a project. The Caltrans Design Program is in the process of providing guidance on Class IV facilities and has already published design guidance for Class I facilities in the Highway Design Manual chapter 1000.

Highway Transportation Officials and the National Association of City Transportation Officials publications help as a guide to Caltrans' philosophy and flexible approach toward designing multimodal transportation projects. For more information, please see: http://www.dot.ca.gov/Documents/2014-4-2-Flexibility-in-Design.pdf.

These guides promote a network of Class I, Class II and Class III bicycle facilities that connect major origins and destinations. They should be considered in all transportation system developments so as to include flexibility in future design options.

The different types of bicycle facilities are described below in more detail. There are advantages and disadvantages of each type and the type of rider may vary depending on the type of facility.

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bikeway Class IV (Separated Bikeways, also known as Cycle Tracks) – Separated bikeways are separated from motor traffic by some type of physical constraint (e.g. barriers, parking or bollards)

For further information, please see Appendix C, Bicycle Information.

For a copy of District 6's Bicycle Guide, please see:
http://www.dot.ca.gov/dist6/planning/docs/BicycleGuide.pdf

For more information on bicycles and complete streets, please see the webpage, "District 6 Bicycle and Complete Streets Program," located at: http://www.dot.ca.gov/dist6/bicycle/.

Table 6: Bicycle Facility					
Segment	State Bicycle Facility		Parallel Bicycle Facility within ½ mile of route (if bike prohibited only)		
	Bicycle Access Prohibited	Facility Type	Parallel Facility Present	Segment ID	Name
1	No	NA	NA	NA	NA
2	No	NA	NA	NA	NA
3	No	NA	NA	NA	NA
4	No	NA	NA	NA	NA

Pedestrian Facility

The route has no signals, minimal sidewalk, and only one crosswalk, as most of the route is rural.

Table 7: Pedestrian Facility				
Segment	Ped. Access Prohibited	Sidewalk Present	Junction	
			Location	Type
1	No	Minimal	SR 33 North	Not signalized, at-grade
				No crosswalk, some sidewalk, curb
			Merced St	Not signalized, at-grade
				No crosswalk, some sidewalk
			Kern St	Not signalized, at-grade
				Crosswalk, some sidewalk
			Madera St	Not signalized, at-grade
				No crosswalk, no sidewalk
			Fresno St	Not signalized, at-grade
				No crosswalk, no sidewalk
			Hazelton St	Not signalized, at-grade
				No crosswalk, no sidewalk
			Tulare St	Not signalized, at-grade
				No crosswalk, no sidewalk
			Brumett Wy	Not signalized, at-grade
				No crosswalk, no sidewalk
			Short Rd	Not signalized, at-grade
				No crosswalk, no sidewalk
			Sultze Ave	Not signalized, at-grade
				No crosswalk, no sidewalk
2	No	None	Pentland Rd	Not signalized, at-grade
				No crosswalk, no sidewalk
			Basic School Rd	Not signalized, at-grade
				No crosswalk, no sidewalk
			Metson Lease	Not signalized, at-grade
				No crosswalk, no sidewalk
3	No	None	Old River Rd	Not signalized, at-grade
				No crosswalk, no sidewalk
			Goldencrest St	Not signalized, at-grade
				No crosswalk, no sidewalk
			Wheeler Ridge Access Rd	Not signalized, at-grade
				No crosswalk, no sidewalk
4	No	None	I-5	Not signalized, grade separated
				No crosswalk, no sidewalk
			Sabodan St	Not signalized, at-grade
				No crosswalk, no sidewalk
			SR 99	Not signalized, grade separated
				No crosswalk, no sidewalk

TRANSIT FACILITY

Taft Area Transit (TAT) provides a Taft-Maricopa route weekdays three (3) times a day. This is the only service in the area.

Table 8: Transit Facility

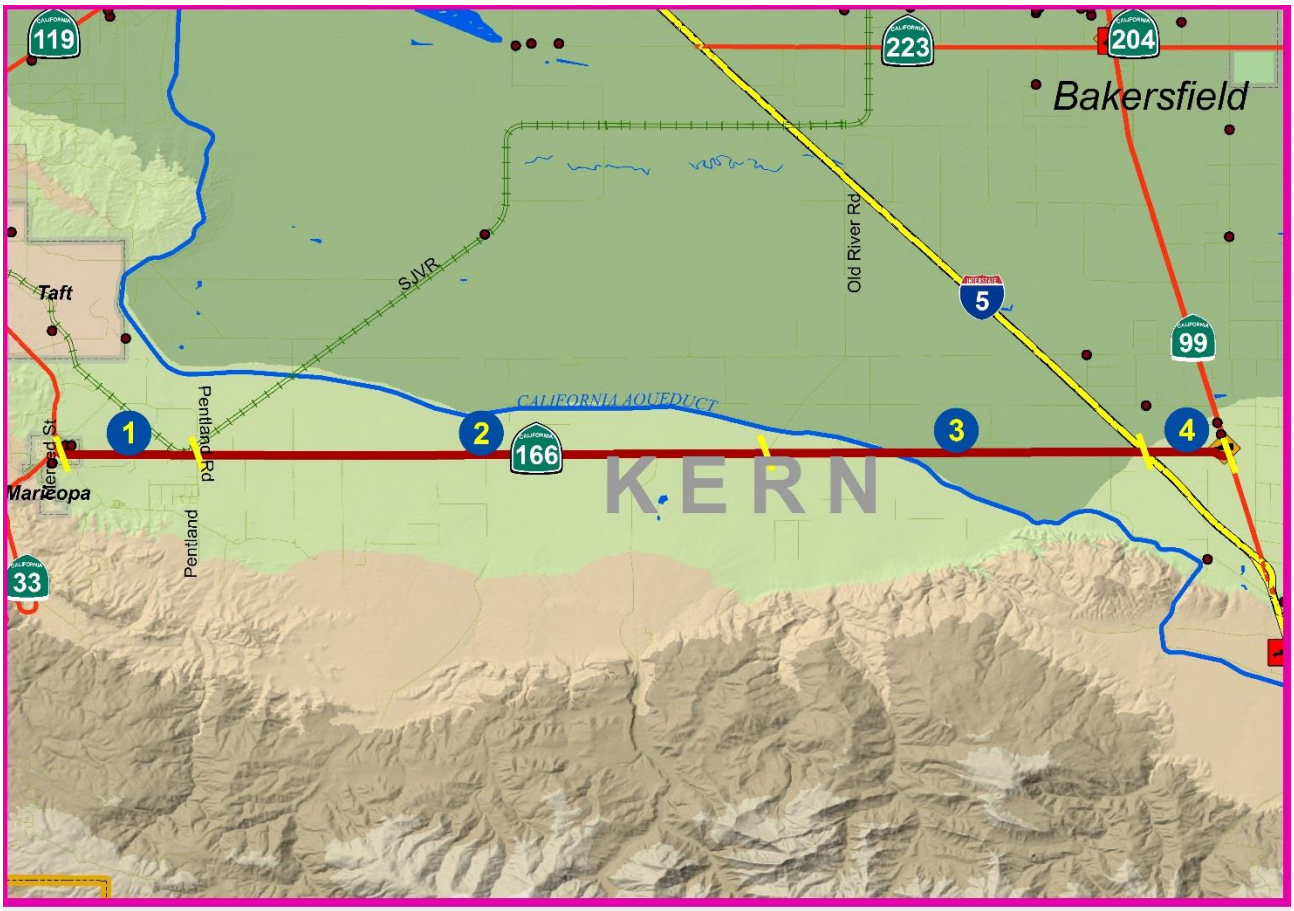
Segment	Mode & Collateral Facility	Name	Route End Points	Annual Ridership	Operating Period	Stops		Bikes Allowed on Transit	Location Description	# Parking Spaces
						Cities	Postmiles			
1	Traditional Bus	Taft Area Transit – Maricopa/Taft Route 3	Taft to Maricopa	3,030	Monday through Friday	Taft and Maricopa	No stops on SR 166	Yes		

FREIGHT

Table 9: Freight Facilities

Facility Type/Freight Generator	Location	Mode	Name	Major Commodity/ Industry
Truck stop	None	NA	NA	NA
Freight generator	None	NA	NA	NA

Map 4: Freight Map



10/27/14 California Dept of Transportation

Legend

- Segment End Points
- Segment Center Points
- Segments

Rail

FREIGHT_OP

- BNSF
- BNSF-UP
- UP
- SJVR
- Other

- CA_CHP_MISTER_Truck_Terminals
- Terminals_GeocodeAddresses
- Travel_Plaza
- Truck Stops
- Railyards
- Intermodal Facility

Businesses

Industry Type

- Farming/Agriculture and Mining
- Manufacturing
- Other Goods Movement Sector
- Transportation and Warehousing
- Wholesale and Retail Trade

No. of Employees

- 100-249
- 250-499
- 500-999
- 1,000-4,999

State Route 166 is an STAA terminal access route. There are no "Weight in Motion" or weight scales of any type on this route. However, in the 2009 Kern General Plan Update, there is mention of a need for a weigh station on SR 166 near Maricopa.

There are no railroad crossings on the route.

There are five (5) bridge structures (all overcrossings) on SR 166. The lowest vertical clearance is 16.57' at the SR 166/SR 99 Separation Overcrossing Bridge at the eastern end of the route.

The corridor has no major freight haulers. However, the route is still a goods movement route as over ten (10) percent of the traffic is attributed to semi-trucks.

Improving the movement of goods in California is a high priority. The State's economy and quality of life depend upon the efficient, safe delivery of goods to and from our ports and borders. It is important to ensure a dependable level of service for movement into and through major gateways and to ensure connectivity to key intermodal transfer facilities, seaports, air cargo terminals, and freight distribution centers. Improving goods movement infrastructure is also pivotal to relieve congestion on freeways and increase mobility for everyone in California.

Caltrans has the responsibility for developing, maintaining, and operating a multi-modal transportation network. This network must function at a high-level with respect to goods movement, interregional, interstate, and cross-border travel. In addition to continuing support for the regional Blueprint Planning programs, Caltrans is developing a statewide interregional, multi-modal blueprint to be known as the *California Interregional Blueprint (CIB).* It will be incorporated into the existing California Transportation Plan (CTP) at the time that plan is updated. The CIB will analyze the benefits of multi-modal, interregional projects on the transportation system, and will expand understanding of the interactions between land use and transportation investments in meeting critical strategic growth and sustainability goals. The benefit of this effort will be stronger partnerships with regional and local agencies and tribal governments, as well as better data for improved decision making at the State, regional, and local level. The CIB will establish a basis for integrating the interregional system into the Smart Mobility Framework, and to deliver support for economic stewardship, connectivity, and reliability valued by freight shippers and carriers. The Inter-regional Blueprint will synthesize the Blueprint Planning work by regional agencies while focusing on the interregional system that is Caltrans' responsibility.

ENVIRONMENTAL CONSIDERATIONS

The Wind Wolves Preserve is a private preserve owned and managed by The Wildlands Conservancy. The land was acquired for the preserve in 1996. It is on the south side of SR 166 and extends into the San Emigdio Mountain Range. The preserve is open to the public daily and provides educational opportunities. Recreational activities include: hiking, mountain biking, and picnicking. The preserve's name is not named for any wolves on the preserve, there are none, but for the tall grasses blowing in the wind on the preserve. Wind Wolves is a diverse setting for many types of wildlife and plants. Tule elk have been reintroduced at the preserve and number around 200 head. Other species that can be found on the preserve include: blunt-nosed leopard lizard, San Joaquin antelope squirrel, Buena Vista Lake shrew, burrowing owl, loggerhead shrike, northern harrier, San Joaquin whipsnake, badger, San Joaquin kit fox, Tulare grasshopper mouse, short-nosed kangaroo rat, Le Conte's thrasher, California condor, coyotes, jack rabbits, red foxes, black-tailed deer, long-tailed weasel, California quail, Pacific tree frog, raccoons, desert cottontails, striped skunks, bobcats, and others. Most of the species found on the preserve are endangered or of concern. It also has one of the largest stands of the endangered Bakersfield cactus.

A study completed in 2011 on the preserve recommended solutions to maintain and improve it by 1) managing and enhancing habitat for rare valley floor species through vegetation management; 2) reestablishing shrubs; 3) installing artificial dens for kit foxes; 4) conducting regular surveys for special status species; 5) monitoring populations of special status species; and 6) continue gathering ecological and demographic information on special status species on the preserve to facilitate long-term conservation.

Wind Wolves Preserve

The chart below shows the critical species and habitats by segment. Some of the species are not listed with a special status, i.e. endangered or threatened, federally or by the state. Regardless, they are all crucial and are impacted.

Table 10: Environmental Critical Species and Habitat

Segment	Flora	Fauna	Habitat
1	Heartscale, Salina's milk-vetch, Kern mallow*, San Benito poppy, Tejon poppy, Hoover's eriastrum, cottony buckwheat, protruding buckwheat	Mountain plover, loggerhead shrike, Le Conte's thrasher, burrowing owl, San Joaquin kit fox*, giant kangaroo rat*, short-nosed kangaroo rat, Tipton kangaroo rat*, San Joaquin pocket mouse, Tulare grasshopper mouse, Nelson's antelope squirrel*, San Joaquin whipsnake, blunt-nosed leopard lizard*, American badger	Valley Saltbush Scrub
2	Kern mallow*	Loggerhead shrike, burrowing owl, San Joaquin kit fox*, Tipton kangaroo rat*, San Joaquin pocket mouse, American badger, Nelson's antelope squirrel*, San Joaquin whipsnake, blunt-nosed leopard lizard*, Tulare grasshopper mouse	None
3	Paniculate tarplant, Comanche Point layia, Bakersfield cactus*, crownscale, Bakersfield smallscale*, Kern mallow*, Hispid salty bird's beak, Tejon poppy	Burrowing owl, San Joaquin kit fox*, Tipton kangaroo rat*, San Joaquin pocket mouse, Tulare grasshopper mouse, Nelson's antelope squirrel*, blunt-nosed leopard lizard*, prairie falcon, tricolored blackbird, Buena Vista Lake ornate shrew*, pallid bat, western pond turtle	Valley Sink Scrub
4	Paniculate tarplant, Lemmon's jewelflower, Bakersfield cactus*	Tricolored blackbird, burrowing owl, San Joaquin kit fox*, Tipton kangaroo rat*, San Joaquin pocket mouse, blunt-nosed leopard lizard*	None

* Species has a special federal and/or state status

The chart below lists possible contamination site(s) and the contaminants. Resource Renewal Technology was once a soil recycling facility for non-hazardous hydrocarbon contaminated soils to produce asphalt. The company filed for bankruptcy and ended its operation. Remnants of contaminated soil, concrete, roofing, tires, and trash remain on the site and are being dumped here.

Table 11: Possible Contamination Sites

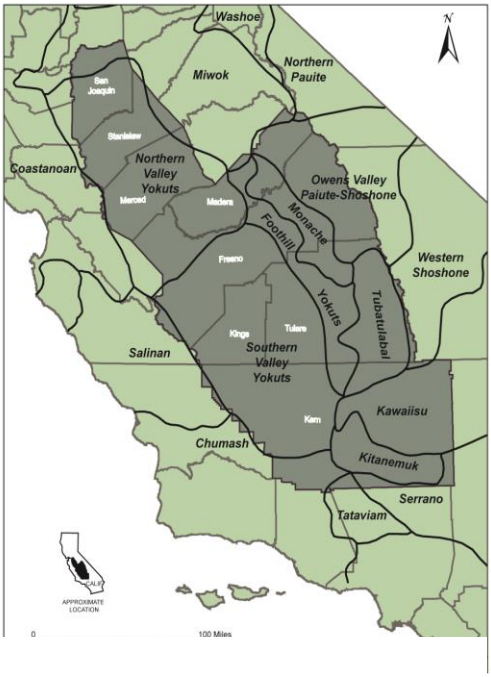
Segment	Name	Location	Contaminants
1	Resource Renewal Technology, Inc.	On the north side of SR 166, between Short Rd and Pentland Rd	Crude oil
2	None	NA	NA
3	None	NA	NA
4	None	NA	NA

Working oil well near Maricopa

NATIVE AMERICAN CONSIDERATIONS

Between the California Aqueduct and SR 99, is California Landmark #291, the Fages-Zalvidea Crossing. In 1772, this site was the crossing of Don Pedro Fages who was the first non-Native American to visit the southern San Joaquin Valley while travelling from San Diego to San Luis Obispo. In 1806, Father Jose Maria de Zalvidea crossed in this area with the Ruiz expedition to search for mission sites. The site was designated in April 1941.

Many California roads and highways originated along Tribal hunting and trading routes. The study, "*California Central Valley Tribal Transportation Environmental Justice Collaborative Project*" identified a number of Tribes that consider portions of the Central Valley as their ancestral land. This study was funded by a Caltrans Environmental Justice grant and was prepared for the Kern County Council of Governments (KCOG) and the Tubatulabals of Kern Valley Tribe on behalf of the eight San Joaquin Valley Metropolitan Planning Organizations (MPOs). These consist of the San Joaquin Council of Governments (SJCOG), Stanislaus Council of Governments (StanCOG), Merced County Association of Governments (MCAG), Madera County Transportation Commission (MCTC), Fresno Council of Governments (FCOG), Kings County Association of Governments (KCAG), KCOG, and the Tulare County Association of Governments (TCAG), in coordination with the tribal governments and communities of the region. The final report is available at:
(http://www.kerncog.org/attachments/265_SJVTribalEJSummary.pdf).



Map 5: Map of Ethnographic Territories in Eight County Study Area

According to the *"Map of Ethnographic Territories in Eight County Study Area*" from the "*California Central Valley Tribal Transportation Environmental Justice Collaborative Project"* report (Map #5), SR 166 passes through areas considered to be the traditional indigenous territories of the Southern Valley Yokuts, and Chumash. Please note that many of the ethnographic territories overlap.

Caltrans consults and coordinates with Tribal Governments and Communities in developing the TCR. The Tribal Governments and Communities are listed under "Tribes" in the chart on page 10.

CORRIDOR PERFORMANCE

TAADT will continue to grow on the route, particularly in segments 3 and 4 which are the easternmost segments closest to SR 99.

Truck traffic contributes to over ten (10) percent of the AADT, making the route a goods movement route. Truck volumes range from 21% to 35%, with over 60% being over five (5) axles.

For further information and details, please see Appendix B, "Summary Charts."

Table 12: Corridor Performance				
Segment	**1**	**2**	**3**	**4**
Basic System Operations				
AADT (BY)	3,000	6,050	2,900	2,000
AADT (HY)	4,200	7,000	5,000	6,000
Truck Traffic				
Total Average Annual Daily Truck Traffic (AADTT) (BY)	838	764	697	436
Total Trucks (% of AADT) (BY)	23%	29%	35%	21%
5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)	541	520	485	295
5+ Axle Trucks (as % of AADT)(BY)	64.6	68	69.6	67.7

Note: Table above contains only the applicable and required data for a TCR, if it does not have PeMS detection, based on the Caltrans, HQ TCR guidelines 2012. Truck data is from 2012.

KEY CORRIDOR ISSUES

A proposed Native American operated casino is currently in environmental review. The casino is just north of SR 166 in Mettler. The Tejon Indian Tribe is planning the casino on 306 acres which will include a 250,000 square-foot casino and possible later expansion that will include a 300-room hotel. If approved, the environmental phase would be completed by late 2016.

This proposed project most likely would impact the eastern end of SR 166. Since the study is not completed at this time, traffic data is not yet available for thorough analysis.

CORRIDOR CONCEPT

CONCEPT RATIONALE

State Route 166 currently operates at a LOS "B". The LOS is not expected to drop until the year 2040, when segment 2 drops to LOS "C". Therefore, there are no capacity increasing projects planned at this time.

Beyond the year 2040, improvements may be considered, which may include turn lanes, signals, and passing lanes. The ultimate concept for the highway is a four-lane conventional highway throughout.

PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Table 13: Planned and Programmed Projects				
Segment	**Description**	**Planned or Programmed**	**Location**	**Source**
1 - 2	AC overlay	Planned (funded)	From SR 33 to 3.5 miles west of the San Emigdio Crk Br	Caltrans District 6's Status of Projects
2	Reconstruct intersection grade	Planned – Unconstrained (unfunded)	At Basic School Rd	Kern COG's 2014 RTP

PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT

There are no improvements needed to meet the 2040 Horizon Year Concept of 2C and 4C (at the end of segment 4). The Ultimate Concept, beyond the 2040 Horizon Year, calls for a 4C.

Table 14: Projects and Strategies to Achieve Concept				
Segment	**Description**	**Location**	**Source**	**Implementation Phase**
1	None	NA	NA	NA
2	None	NA	NA	NA
3	None	NA	NA	NA
4	None	NA	NA	NA

LONG TERM RIGHT-OF-WAY NEEDS:

The amount of right-of-way identified in this summary chart is based on the typical amount needed for this type of facility and is only meant to serve as a guideline. The TCR identifies the future right-of-way needs as a range of width with the intent to accommodate site-specific variations. These include site conditions (slope, utilities, etc.), operational needs, and potential design features that may require additional right-of-way. These design features include, but are not limited to, roundabouts, turn-lanes, on-street parking, bike lanes, and passing lanes. Additional right-of-way may also be needed on the facility to mitigate potential air quality impacts. Exact right-of-way needs will be determined on a case-by-case basis.

Please note: The number of lanes needed to meet the UTC for this route is only a guideline. The minimum ROW is "subject to change" in urban and suburban areas where a route also serves local circulation needs. The need to widen the roadway beyond the UTC may be necessary to maintain the target LOS. The local jurisdictions should

endeavor to maintain adequate ROW to maintain the target LOS, which in an urban setting could exceed the UTC number of lanes. Where the State legislature has designated the Route as part of the Freeway and Expressway System, interchange and freeway right-of-way should be part of the General Plan so as not to adversely affect development.

The UTC may not be achievable in some areas due to existing development. In urban areas, it is also possible that the UTC may not reflect the local jurisdiction's vision for community, and that they may not want the highway to be widened. Maintaining the Route as it currently exists would necessitate the local jurisdiction accepting a lower level of service. Caltrans will work with our local partners to develop context sensitive solutions for those sections of the Route that serve local communities.

APPENDICES

APPENDIX A

ACRONYMS AND GLOSSARY OF TERMS

Acronyms

2C – Two-lane conventional highway
2E – Two-lane expressway
4C – Four-lane conventional highway
4E – Four-lane expressway
4F – Four-lane freeway
6C – Six-lane conventional highway (rare)
6E – Six-lane expressway
6F – Six-lane freeway
8E – Eight-lane expressway (rare)
8F – Eight-lane freeway
10F – Ten-lane freeway
AADT - Annual Average Daily Traffic
ADA – Americans with Disabilities Act of 1990
ADT - Average Daily Traffic
BRT - Bus rapid transit
CALTRANS – California Department of Transportation
CAPM - Capital Preventative Maintenance
CCTV - Closed Circuit Television Cameras
CEQA - California Environmental Quality Act
CMA - Congestion Management Agencies
CMAQ - Congestion Mitigation and Air Quality
CMIA - Corridor Mobility Improvement Account
CMS - Changeable Message Sign
COG - Council of Governments
CSMP - Corridor System Management Plan
CSS – Context Sensitive Solutions
CT - Caltrans
CTC - California Transportation Commission
ELLN – Extralegal Load Network
FHWA – Federal Highway Administration
FSR – Feasibility Study Report
FSTIP - Federal Statewide Transportation Improvement Program
FTIP – Federal Transportation Improvement Program
GHG - Green House Gas
GIS – Geographic Information System
HAR - Highway Advisory Radio
HCP - Habitat Conservation Plan
HDM – Highway Design Manual
HOT - High occupancy toll lane
HOV - High occupancy vehicle lane
IIP - Interregional Improvement Plan

IGR - Intergovernmental Review
IRRS - Interregional Road System
ITIP - Interregional Transportation Improvement Program
ITMS - Intermodal Transportation Management System
ITS – Intelligent Transportation System
ITSP - Interregional Transportation Strategic Plan
KPRA – Kingpin-to-rear-axle distance for trucks
LOS – Level of Service
MOU - Memorandum of Understanding
MPO - Metropolitan Planning Organizations
MTC - Metropolitan Transportation Commission
MTCE - Maintenance (State program)
NA - Not available
NHS - National Highway System
NOA – Naturally Occurring Asbestos
NCCP - Natural Community Conservation Plan
NEPA - National Environmental Policy Act
OC - Overcrossing
OH – Overhead
PeMS – A freeway performance measure system for California
PID - Project Initiation Document
PM - Post mile
PSR - Project Study Report
PSSR - Project Scope Summary Report
RCR - Route Concept Report
RHNA - Regional Housing Needs Allocation
RIP - Regional Improvement Program
ROW or **R/W** - Right-of-Way
RPU - Remote Processing Unit – was known as RWIS (Remote Weather Information Station)
RTIP – Regional Transportation Improvement Program
RTP - Regional Transportation Plan
RTPA - Regional Transportation Planning Agencies
SAFETEA - Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2005
SCS - Sustainable Community Strategies
SHOPP - State Highway Operation Protection Program
SHS – State Highway System
SJVAPCD - San Joaquin Valley Air Pollution Control District
SR – State Route
STIP – State Transportation Improvement Program
TASAs - Traffic Accident Surveillance and Analysis System
TCM - Transportation Control Measure
TCR - Transportation Concept Report
TCS - Traffic Count Station
TDM – Transportation Demand Management
TEA-21 - Transportation Equity Act for the 21st Century
TMC - Transportation Management Center
TMS – Transportation Management System
TSN - Transportation System Network
UC - Undercrossing

UTC - Ultimate Transportation Concept
VDS - Vehicle Detection System
VHT - Vehicle Hours Traveled
VMT – Vehicle Miles Traveled

Definitions

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Assembly Bill (AB) 32 - The Global Warming Solutions Act of 2006, or Assembly Bill (AB) 32, is a California State Law that fights climate change by establishing a comprehensive program to reduce greenhouse gas emissions from all sources throughout the state. Requires California to reduce its GHG emissions to 1990 levels by 2020 — a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario.

Base year – The year that the most current data is available to the Districts.

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bottlenecks – A bottleneck is a location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger Rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

Concept LOS – The minimum acceptable LOS over the next 20-25 years

Conceptual Project – A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a fiscally constrained plan and is not currently programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

Conventional Highway – A highway without control of access which may or may not be divided. Grade separations at intersections or access control may be used when justified at spot locations.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Expressway – An arterial highway with at least partial control of access, which may or may not be divided or have grade separations at intersections.

Extralegal Load – An "extralegal load" is a single unit or an assembled item which, due to its design, cannot be reasonably reduced or dismantled in size or weight so that it can be legally transported as a load without a permit as required by California Vehicle Code Section 35780. This section does not apply to loads on passenger cars.

Facility Concept – Describe the Facility and strategies that may be needed within 20-25 years. This can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility, Non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, Transportation Demand Management and Incident Management.

Facility Type – The facility type describes the State Highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Freeway – A divided arterial highway with full control of access and with grade separations at intersections.

Freight Generator – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

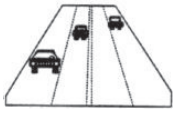
Headway – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

Horizon Year – The year that the future (20-25 years) data is based on.

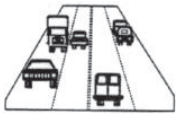
Intermodal Freight Facility – Intermodal transport requires more than one mode of transportation. An intermodal freight facility is a location where different transportation modes and networks connect and freight is transferred (or "transloaded") from one mode, such as rail, to another, such as truck.

ITS – Intelligent Transportation System improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:



LOS A describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

System Operations and Management Concept – Describe the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Aux. lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV land to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – Is a part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a District or statewide standard.

PeMS – A freeway performance measure system for California. Data are collected in real-time from nearly 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California. It is also an Archived Data User Service (ADUS) that provides over ten years of data for historical analysis. It integrates a wide variety of information from Caltrans and other local agency systems

Planned Project – A planned improvement or action is a project in a fiscally constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

Post-25 Year Concept – This dataset may be defined and re-titled at the District's discretion. In general, the Post-25 Year concept could provide the maximum reasonable and foreseeable roadway needed beyond a 20-25 year horizon. The post-25 year concept can be used to identify potential widening, realignments, future facilities, and rights-of-way required to complete the development of each corridor.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a count to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

Programmed Project – A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

Railroad Class I – The Surface Transportation Board (STB) defines a Class I railroad in the U.S. as a carrier having annual operating revenues of $250 million or more. This class includes the nation's major railroads. In California, Class I railroads include Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railway (BNSF).

Railroad Class II – STB defines a Class II railroad in the U.S. as having annual carrier operating revenues of less than $250 million but more than $20 million. Class II railroads are considered mid-sized freight-hauling railroad in terms of operating revenues. They are considered "regional railroads" by the Association of American Railroads.

Railroad Class III – Railroads with annual carrier operating revenues of $20 million or less. The typical Class III is a short line railroad, which feeds traffic to or delivers traffic from a Class I or Class II railroad.

Roundabout – A roundabout is a British word for a road junction in which vehicles move in one direction around a central island with priority given to the vehicles already in the circulating flow of the roundabout. The roundabout is a circular intersection that creates a circular traffic flow pattern using yield controls on each approach and signage to inform the driver about slowing down and recognizing who has the right-of-way. Vehicles enter the roundabout and navigate counter-clockwise with the option to make an immediate right-turn, go straight, or continue around the roundabout.

Route Designation – A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System,

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau

Segment – A portion of a facility between two points.

Senate Bill (SB) 375 - SB 375 is California state legislation that became law effective January 1, 2009. It prompts California regions to work together to reduce greenhouse gas (GHG) emissions from cars and light trucks. This new law would achieve this objective by requiring integration of planning processes for transportation, land-use and housing. The plans emerging from this process will lead to more efficient communities that provide residents with alternatives to using single occupant vehicles. SB 375 requires the California Air Resources Board (ARB) to develop regional reduction targets for automobiles and light trucks GHG emissions. The regions, in turn, are tasked with creating "sustainable communities strategy," (SCS) which combine transportation and land-use elements in order to achieve the emissions reduction target, if feasible. SB 375 also offers local governments regulatory and other incentives to encourage more compact new development and transportation alternatives.

TDM – Transportation Demand Management programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

TMS – Transportation Management System is the business processes and associated tools, field elements and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

Urban – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

VMT – Is the total number of miles traveled by motor vehicles on a road or highway segments.

APPENDIX B
SUMMARY CHARTS

State Route 166

LEGEND

Existing Lanes

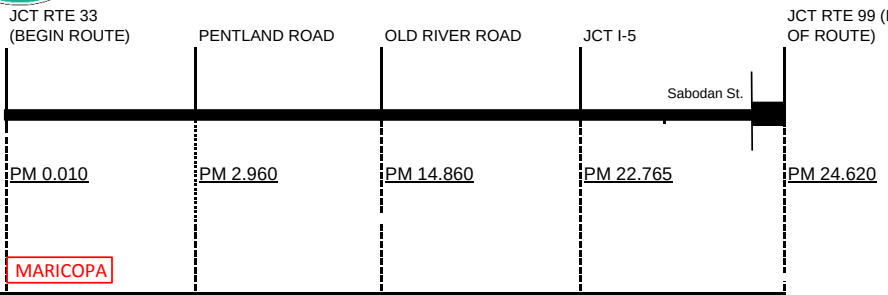
Conventional

Number of Lanes

2

4

* Not to scale



Segment: Is self-explanatory except for several data sets:

Rural/Urban: Indicates whether the segment is in a rural area or city limits.

Terrain: Shows the general highway grade: minimal grade = level; moderate grade = rolling; and severe grade = mountainous.

ROW: Portrays Right-of-Way (ROW) and geometric data in feet.

Shoulder Range: Is a range of treated surface (8' standard), both inside and outside shoulders.

Ultimate Transportation Corridor (UTC): Is the typical ROW needed for the ultimate facility,i.e., 8 lane freeway(8F) 218 feet is the standard typical UTC ROW - will be updated upon corridor plan lining by specific sections of highway.

Facility: Shows the Existing Facility, the desired facility type (2040 Concept) by 2040 RTPAs and Caltrans, and the Ultimate Facility to preserve ROW and plan line beyond 2040. 2C(I) indicates that the highway has been improved in select locations with operational or safety improvements.

LOS: The current LOS (level of service) for traffic volumes, along with the expected calculated LOS in 2025 and 2040. The 2040 Concept is the target LOS desired, i.e., LOS C, for attainment by 2040.

Deficiency: Occurs when the target LOS is degraded with the year of occurrence shown. It also shows whether a capacity improving project is in the STIP, and what the LOS would be with the 2040 Concept improvement.

Directional Split: Denotes the split in the peak hour traffic flow on a directional basis (NB/SB or WB/EB) either in the morning (AM) or evening (PM).

(I)++: 2-lane conventional highway improvements, turn lanes, signals, passing lanes, etc.

AADT: signifies Annual Average Daily Traffic.
Peak Hour: Indicates a representation of the maximum hour of traffic flow during the day.
N/A Not deficient, no project recommended/not applicable.

SEGMENT	1	2	3	4
County / State Route	KER / 166	KER / 166	KER / 166	KER / 166
Description Begin	JCT RTE 33	PENTLAND ROAD	OLD RIVER ROAD	JCT I-5
Description End	PENTLAND ROAD	OLD RIVER ROAD	JCT I-5	JCT RTE 99
Postmile Limits Begin/End (PM)	0.010 / 2.960	2.960 / 14.860	14.860 / 22.765	22.765 / 24.620
Length (MI)	2.9	11.9	7.9	1.9
Rural / Urban	URBAN/RURAL	RURAL	RURAL	RURAL
Terrain	FLAT	FLAT	FLAT	FLAT
ROW: Range Existing (FT)	60 / 100	100 / 100	100 / 100	100 / 140
Median Range (FT)	0 / 0	0 / 0	0 / 0	0 / 22
Shoulder Range (FT) Treated	0 / 8	0 / 8	8 / 8	8 / 8
Lane Width (FT)	11 / 12	11 / 12	12	12
Ultimate ROW (FT)	110 / 146	146	146	146
Facility: Existing	2C	2C	2C	2C/4C
2040 Concept	2C(I)++	2C(I)++	2C(I)++	2C(I)++/4C
UTC	4C	4C	4C	4C
LOS: 2014	B	B	B	B
LOS: 2025	B	B	B	B
LOS: 2040	B	C	B	B
LOS: Concept 2040	C	C	C	C
Deficiency/Year Deficient	N/A	N/A	N/A	N/A
Project in STIP/RTP (Y/N)	NO	NO	NO	NO
LOS W/ Concept Improvement	N/A	N/A	N/A	N/A
Directional Split (Peak Hour)	50 / 50	33 / 67	33 / 67	33 / 67
AADT: 2014	3,000	6,050	2,900	2,000
AADT: 2025	3,500	6,500	3,800	3,900
AADT: 2040	4,200	7,000	5,000	6,000
Peak Hour: 2014	200	590	240	200
Peak Hour: 2025	230	640	320	360
Peak Hour: 2040	270	690	420	560
% Trucks: AADT	29%	29%	27%	24%
% Trucks: Peak Hour	10%	11%	10%	10%

LEGEND

Existing Lanes

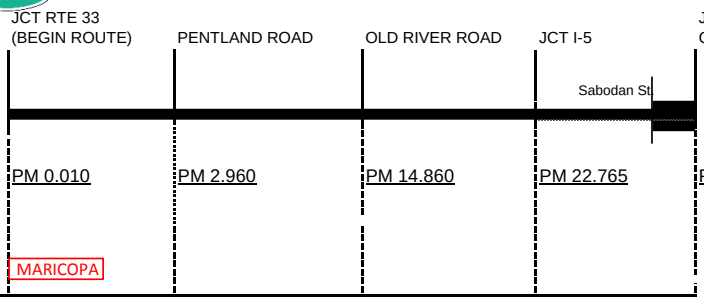
Conventional

Number of Lanes

2

4

* Not to scale



Segment: Is self-explanatory except for several data sets:

Functional Classification: A process by which streets and highways are grouped into or classification systems.

Freeway/Expressway System: The Statewide system of highways declared to be essential to the future development of California.

Regionally Significant: Serves regional transportation needs including at a minimum all principal arterial highways and all fixed guideway transit facilities.

STRAHNET: A highway that provides defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war.

Lifeline: A route on the State highway system that is deemed so critical to emergency response/life-saving activities of a region or the state that it must remain open.

IRRS: (Interregional Road System): A series of State highway routes, outside the urbanized areas, that provide access to the State's economic centers, major recreational areas, and urban and rural regions.

STAA (Surface Transportation Assistance Act): This act required states to allow larger trucks on the National Network. "Terminal Access" routes are State highways that can accommodate STAA trucks. Other designations i,e., California Legal offer more limited access.

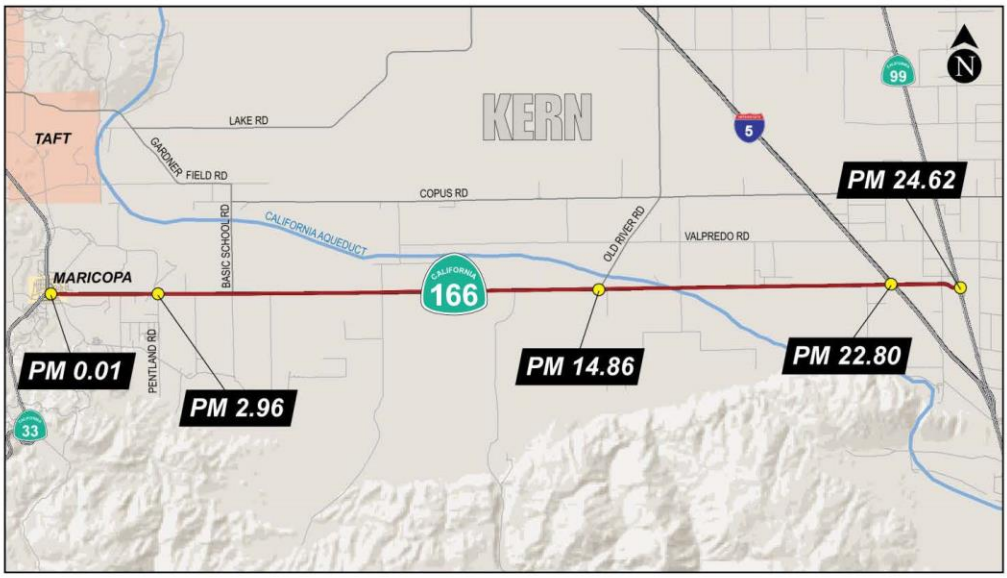
Scenic: A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers.

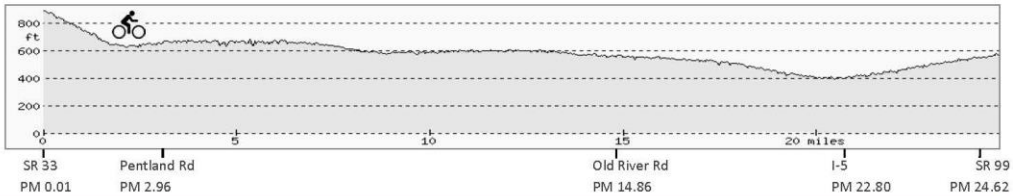
ICES (Intermodal Corridor of Economic Significance): Significant National Highway System Corridors that link intermodal facilites most directly, conveniently and efficiently to intrastate, interstate, and international markets.

SEGMENT	1	2	3	4
County / State Route	KER / 166	KER / 166	KER / 166	KER / 166
Description Begin	JCT RTE 33	PENTLAND ROAD	OLD RIVER ROAD	JCT I-5
Description End	PENTLAND ROAD	OLD RIVER ROAD	JCT I-5	JCT RTE 99
Postmile Limits Begin/End (PM)	0.010 / 2.960	2.960 / 14.860	14.860 / 22.765	22.765 / 24.620
Length (MI)	2.9	11.9	7.9	1.9
Functional Classification	MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL	MINOR ARTERIAL
National Highway System (NHS) (Y/N)	NO	NO	NO	NO
Freeway/Expressway System (Y/N)	YES	YES	YES	NO
Regionally Significant (Y/N)	YES	YES	YES	YES
STRAHNET (Y/N)	NO	NO	NO	NO
Lifeline (Y/N)	NO	NO	NO	NO
IRRS (Yes: HE=High Emphasis, F=Focus, G=Gateway or No)	NO	NO	NO	NO
TRUCK NETWORK, STAA: (NN=National Network, TA=Terminal Access, CL= California Legal, R= Special Restrictions, or A=Advisory)	TA	TA	TA	TA
Scenic (Yes: Officially Designated, Eligible or No)	NO	NO	NO	NO
ICES (Intermodal Corridor of Economic Significance) (Y/N)	NO	NO	NO	NO
General Plan/RTP LOS Standard	KERN CO LOS D FOR CMP & RTP REGIONALLY SIGNIFICANT SYSTEM	KERN CO LOS D FOR CMP & RTP REGIONALLY SIGNIFICANT SYSTEM	KERN CO LOS D FOR CMP & RTP REGIONALLY SIGNIFICANT SYSTEM	KERN CO LOS D FOR CMP & RTP REGIONALLY SIGNIFICANT SYSTEM
General Plan/RTP Standard Highway Classification	EXPRESSWAY	EXPRESSWAY	EXPRESSWAY	EXPRESSWAY
Passing Lanes (Y/N)	NO	NO	NO	NO
Bike Use Allowed (Y/N)	YES	YES	YES	YES

APPENDIX C
BICYCLE INFORMATION

STATE ROUTE 166 Kern County Bicycle Map

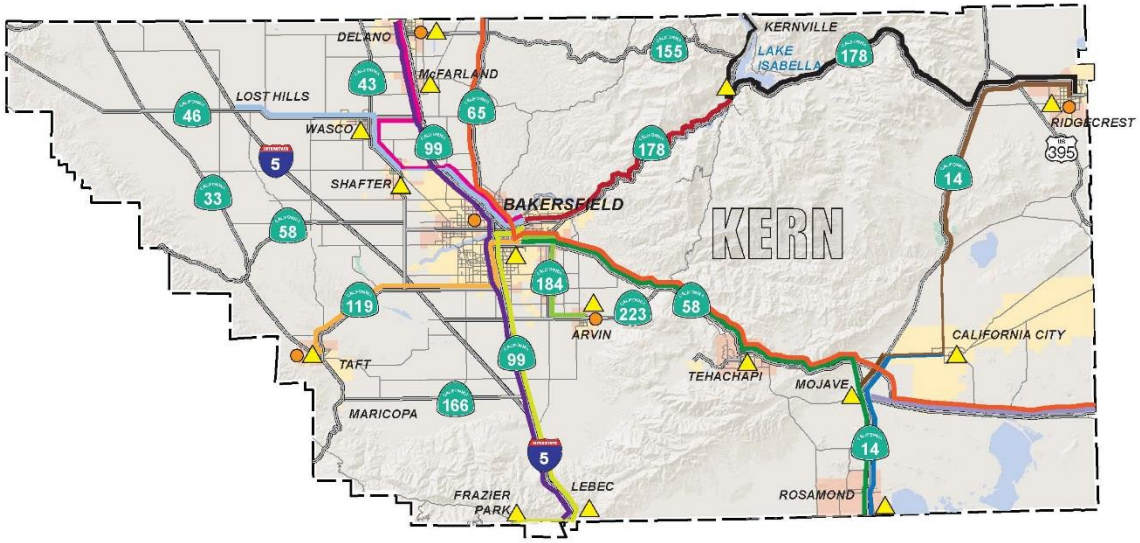




Location *(Postmile)*	Facility (Lanes)	Rural/ Urban	Shoulder (Treated)	Terrain	Speed Limit Posted	Facility Description
State Route 33 to Pentland Road *(PM 0.01 – 2.96)*	2 Lane Highway	Urban/ Rural	0 – 8 feet	Level	35 & 55	Shoulders 2 feet or less in rural areas, City of Maricopa *PM 0.01 – 0.33* shoulders 8 feet, dry arid surrounding land, 1 call box available.
Pentland Road to Old River Road *(PM 2.96 – 14.86)*	2 Lane Highway	Rural	0 – 8 feet	Level	55	Shoulders 2 feet about 50% on the west section & 8 feet about 50% in the east section, surrounding agriculture and grazing land, 4 call boxes.
Old River Road to Interstate 5 *(PM 14.86 – 22.80)*	2 Lane Highway	Rural	8 feet	Level	55	8 foot shoulders, surrounding agriculture land, 5 call boxes available.
Interstate 5 to State Route 99 *(PM 22.80 – 24.62)*	2/4 lane Highway	Rural	8 feet	Level	55	8 foot shoulders, surrounding agriculture land, 1 call box available.

46

Transit Services on State Routes
Kern County



Transit Service & Trips
Kern County Transit

Bakersfield to Lost Hills
Weekdays: 5 trips per day
Saturday: 3 trips

Bakersfield to Frazier Park
Weekdays: 4 trips per day
Saturday: 4 trips per day

Bakersfield to Lancaster
Weekdays: 8 trips per day
Weekends: 2-3 trips per day

Bakersfield to Lake Isabella
Weekdays: 4 trips per day
Weekends: 4 trips per day

Bakersfield to Taft
Weekdays: 5 trips per day
Saturday: 3 trips per day

Bakersfield to Arvin
Weekdays: 11 trips per day
Weekends: 9-11 trips per day

Bakersfield to Delano
Weekdays: 7 trips per day
Weekends: 3 trips per day

Lancaster to California City
Weekdays: 7 trips per day
Saturdays: 3 trips

Mojave to Ridgecrest
Monday, Wednesday, Friday: 2 trips per day

Mojave to Boron
Wednesdays: 3 trips per day

Lake Isabella to Ridgecrest
Monday, Wednesday, Friday: 3 trips per day

Greyhound Bus Service
Daily: 6 trips

Orange Belt Stages
Daily: 1 trips

Demand Response Service
(Various Locations)

Fixed Transit Routes Within Cities
Bakersfield, Delano, Taft, *Arvin and *Ridgecrest
Service: Weekdays & Weekends
* No service on weekends

http://kerntransit.org/

65

APPENDIX E
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